



AT A GLANCE

Division for Heart Disease and Stroke Prevention

Addressing the Nation's Leading Killers 2006

Strategies for a Heart-Healthy and Stroke-Free America



"CDC's newly created Division for Heart Disease and Stroke Prevention is the foundation for the development of the science and research necessary to prevent these leading killers, which continue to rob too many Americans of precious years of life."

*Julie Louise Gerberding, MD, MPH
Director, Centers for Disease Control and Prevention*

Heart Disease and Stroke: The Nation's Leading Killers

Deaths, Disability, and Cost

Heart disease and stroke are the most common cardiovascular diseases. They are the first and third leading causes of death for both men and women in the United States, accounting for nearly 40% of all annual deaths. More than 910,000 Americans die of cardiovascular diseases each year, which is 1 death every 35 seconds. Although these largely preventable conditions are more common among people aged 65 or older, the number of sudden deaths from heart disease among people aged 15–34 has increased.

In addition, more than 70 million Americans currently live with a cardiovascular disease. Coronary heart disease is a leading cause of premature, permanent disability in the U.S. workforce. Stroke alone accounts for disability among about 1 million Americans. More than 6 million hospitalizations each year are because of cardiovascular diseases.

The economic impact of cardiovascular diseases on our nation's health care system continues to grow as the population ages. The cost of heart disease and stroke in the United States is projected to be \$403 billion in 2006, including health care expenditures and lost productivity from death and disability.

Risk Factors Must Be Addressed

Two of the major independent risk factors for cardiovascular diseases are high blood pressure and high blood cholesterol.

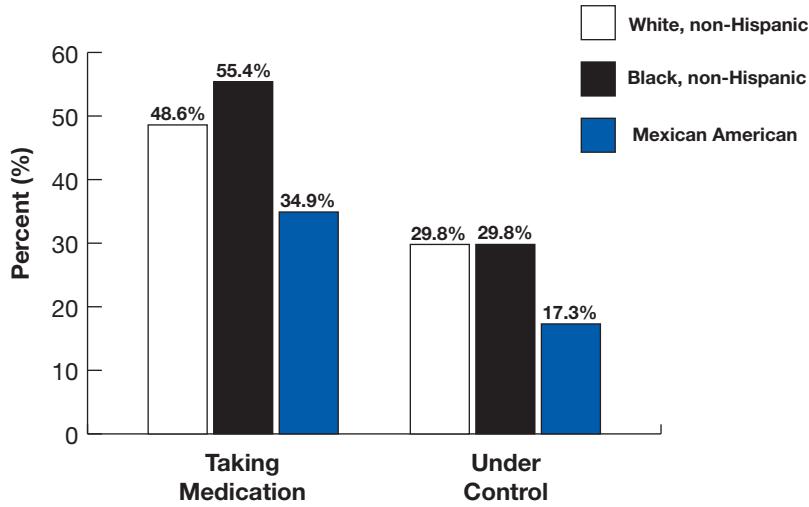
- During 1999–2002, nearly 29% of U.S. adults had high blood pressure (hypertension); 45% were being treated with medication, and only 29% had the condition under control. For 2006, the estimated direct and indirect cost of high blood pressure is \$64 billion.
- A 12- to 13-point reduction in blood pressure can reduce heart attacks by 21%, strokes by 37%, and all deaths from cardiovascular disease by 25%.
- During 1999–2002, nearly 25% of U.S. adults had high cholesterol levels or were being treated with medication. Only 63% of those with high levels were aware of it.

- A 10% decrease in total blood cholesterol levels may reduce the incidence of coronary heart disease by as much as 30%.

A key strategy for addressing these risk factors is to educate the public and health care practitioners about the importance of prevention. Current national guidelines recommend that all adults have their blood pressure checked regularly and their blood cholesterol levels checked every 5 years. Systems changes are needed to help health care practitioners follow guidelines for treating patients with or at risk for heart disease and stroke, such as prescribing beta-blockers and aspirin. Preventive actions can help people with any level of blood pressure or cholesterol reduce their risk.

People also need to be educated about the signs and symptoms of heart attack and stroke and the importance of calling 911 quickly. Forty-seven percent of heart attack victims and about the same percentage of stroke victims die before emergency medical personnel arrive. Other important risk factors for heart disease and stroke—such as diabetes, tobacco use, physical inactivity, poor nutrition, and overweight and obesity—need to be addressed through lifestyle changes and appropriate use of medications.

People with Hypertension Who Are Being Treated with Medications and/or Have the Condition Under Control, by Race/Ethnicity, 1999–2002*



*Age-adjusted to the 2000 U.S. standard population. People with hypertension are those with a systolic pressure ≥ 140 mm Hg or a diastolic pressure ≥ 90 mm Hg, or those taking antihypertensive medication. People with hypertension under control are those who were told that their blood pressure was high, but who have lowered it to $< 140/90$ mm Hg. Source: CDC. MMWR 2005;54(1):7–9.

CDC's National Leadership

CDC is committed to ensuring that all people, especially those at greater risk for health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life. With new health protection goals that support healthy people in healthy places across all life stages, CDC is setting the agenda to enable people to enjoy a healthy life by delaying death and the onset of illness and disability by accelerating improvements in public health.

CDC also provides national leadership through its programs and activities. In 2005, CDC created the **Division for Heart Disease and Stroke Prevention** (DHDSP) to focus and consolidate its efforts to improve the nation's cardiovascular health (CVH). CDC also initiated **State Cardiovascular Health Examination Surveys** in Arkansas, Kansas, and Washington in 2005. This 2-year demonstration surveillance project will measure blood pressure and cholesterol levels in state residents and help states develop strategies to control high blood pressure and high cholesterol among residents. In addition, CDC is developing a **Prevention Research Center Network** to develop and implement prevention research activities that emphasize CVH promotion.

The new division also will include CDC's WISEWOMAN (Well-Integrated Screening and Evaluation for Women Across the Nation) program. WISEWOMAN provides underinsured or uninsured, mostly minority, women aged 40–64 years access to screening and lifestyle interventions to reduce their risk for heart disease, stroke, and other chronic diseases. Integrating this program allows DHDSP to broaden its public health strategies and build new partnerships. CDC's leadership in CVH includes its funding of the State Heart Disease and Stroke Prevention Program. In fiscal year 2005, Congress allocated \$45 million for this program, allowing CDC to fund 32 states and the District of Columbia (14 for basic implementation and 19 for capacity building). For 2006, CDC received \$44.5 million for this program.

Paul Coverdell National Acute Stroke Registry

In 2005, CDC's Paul Coverdell National Acute Stroke Registry funded Georgia, Illinois, Massachusetts, and North Carolina to establish state-based stroke

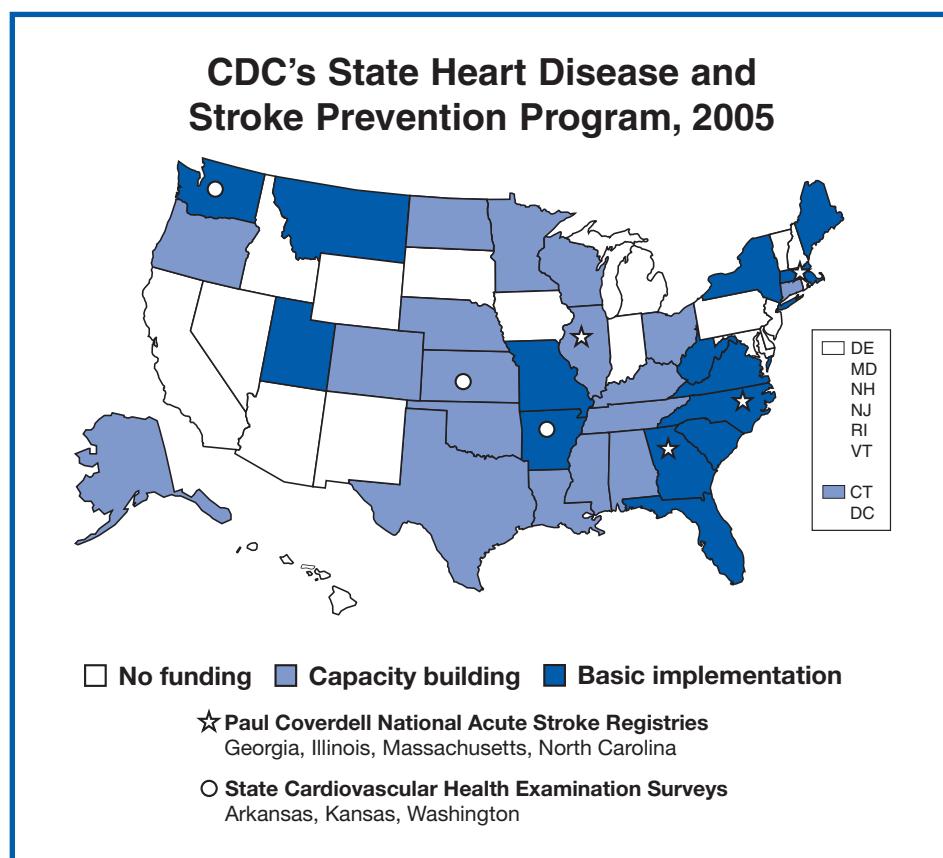
registries. This funding allows states to address quality-of-care gaps between recommended treatment guidelines and actual hospital practice. The registries also will measure, track, and standardize treatment practices to improve emergency and long-term care for acute stroke victims.

Public Health Action Plan

A Public Health Action Plan to Prevent Heart Disease and Stroke is a groundbreaking collaboration that will guide the nation's heart disease and stroke prevention efforts. The *Action Plan* was developed by public and private partners who are committed to preventing disease rather than treating its consequences and to transforming public health agencies and their partners into effective agents of change. The National Forum for Heart Disease and Stroke Prevention is helping to implement the *Action Plan* and to improve CVH policies and practices at national, state, and community levels.

Atlases Highlight Local Data

CDC has published a series of atlases on geographic and racial/ethnic disparities in heart disease and stroke in the United States. In 2005, CDC published the *Atlas of Heart Disease and Stroke Among American Indians and Alaska Natives*, which is the first atlas to focus on geographic disparities in mortality and risk factors for a specific racial/ethnic group.



State Programs and Key Partnerships

CDC's Heart Disease and Stroke Prevention Program helps states control high blood pressure and high blood cholesterol among residents, increase awareness of the signs and symptoms of heart attack and stroke, improve emergency response, improve quality of care, and eliminate health disparities. Examples of state activities include

- As part of the National Health Disparities Collaborative, partnering with the federal Health Resources and Services Administration and community health care centers to help these centers better manage high blood pressure among underserved populations.
- Establishing policies for emergency medical services staff and hospitals to treat stroke as an emergency.
- Ensuring work site detection and follow-up services to control high blood pressure and high blood cholesterol among workers.
- Providing educational initiatives to raise people's awareness of the signs and symptoms of heart attack and stroke and the need to call 911 immediately.
- Helping hospitals make systems changes that will help them adhere to national guidelines and recommendations in order to ensure quality care for victims of heart disease and stroke.

State Cardiovascular Health Examination Survey

CDC and the National Heart, Lung, and Blood Institute are the co-lead federal agencies for addressing the *Healthy People 2010* goal of reducing the nation's heart disease and stroke burden. To help states monitor their progress toward this goal, CDC funded three states (Arkansas, Kansas, and Washington) in 2005 to develop and implement demonstration models of a state cardiovascular health examination survey.

Future Directions

CDC will continue to provide national leadership to prevent death and disability from heart disease and stroke, to eliminate disparities in health and health care, and to work with its many partners to fully implement the *Action Plan*. Future priorities are to build the public health foundation for translating science into practice, to address disparities in quality years of healthy life

State Programs in Action

The **Louisiana Heart Disease and Stroke Prevention Program** and the Louisiana Stroke Treatment Task Force have trained 353 emergency medical personnel how to evaluate and treat stroke victims before they arrive at a hospital. They also are promoting use of a stroke protocol for all prehospital emergency medical systems in the state. A public awareness campaign on recognizing stroke signs and symptoms and calling 911 right away is being conducted statewide.

In six state trauma regions, the **Kansas Heart Disease and Stroke Prevention Program** works with partners to standardize emergency medical dispatcher (EMD) training and train key EMDs (who then train others) to recognize the signs and symptoms of heart attack. By July 2005, 336 EMDs had been trained.

The **Massachusetts Heart Disease and Stroke Program** is responding to recent state legislation that designates certain hospitals as Primary Stroke Service providers. Hospitals with this designation must conduct community education on signs and symptoms of stroke. The state used the Cincinnati FAST (Face, Arms, Speech, Time or Telephone) stroke scale to develop media messages and print materials.

The **Washington Heart Disease and Stroke Program** collaborates with partners to sponsor the Washington State Collaborative (WSC). The WSC reinforces the chronic care model and trains health professionals and clinical staff. Four primary care practices are working with the WSC to monitor quality of care for patients with cardiovascular disease. On average, cholesterol control increased 6% among patients.

by ensuring the availability of basic essential services, and to fund the 18 unfunded states to help prevent heart disease and stroke among all Americans.

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